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## Organic Chemistry I Drill (CHEM2210D) - Module 8 - Sample B. Answer Key

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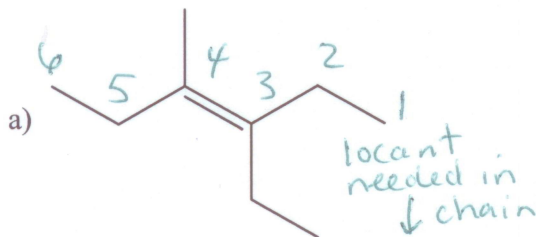
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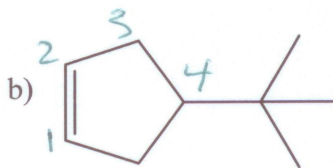
Name KEY  
Organic Chemistry 2210D

Eighth Drill Test (Sample B)  
Answer All Questions

1. Give the IUPAC name of each of the following compounds.



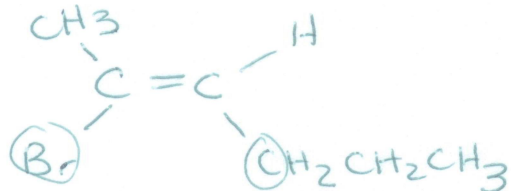
3-ethyl-4-methyl-3-hexene



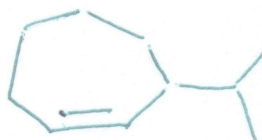
4-tert-butylcyclopentene

2. Draw the structure of each of the following compounds.

a) (Z)-2-bromo-2-hexene

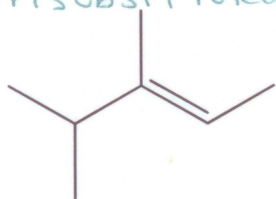


b) 3-isopropylcycloheptene

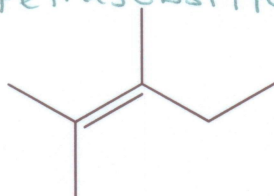


3. Which of the following compounds is the most stable? Which is the least stable?

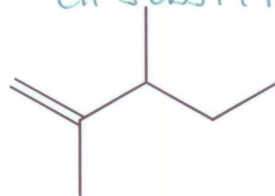
trisubstituted



tetrasubstituted



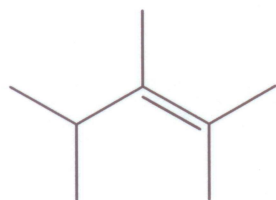
disubstituted



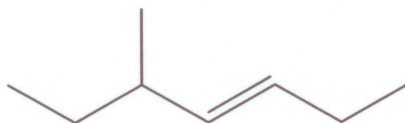
most stable

least stable

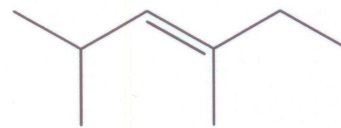
4. Which of the following compounds has the greatest enthalpy (heat) of combustion? = least stable  
Which has the smallest?



tetrasubstituted  
most stable  
smallest  $\Delta H$

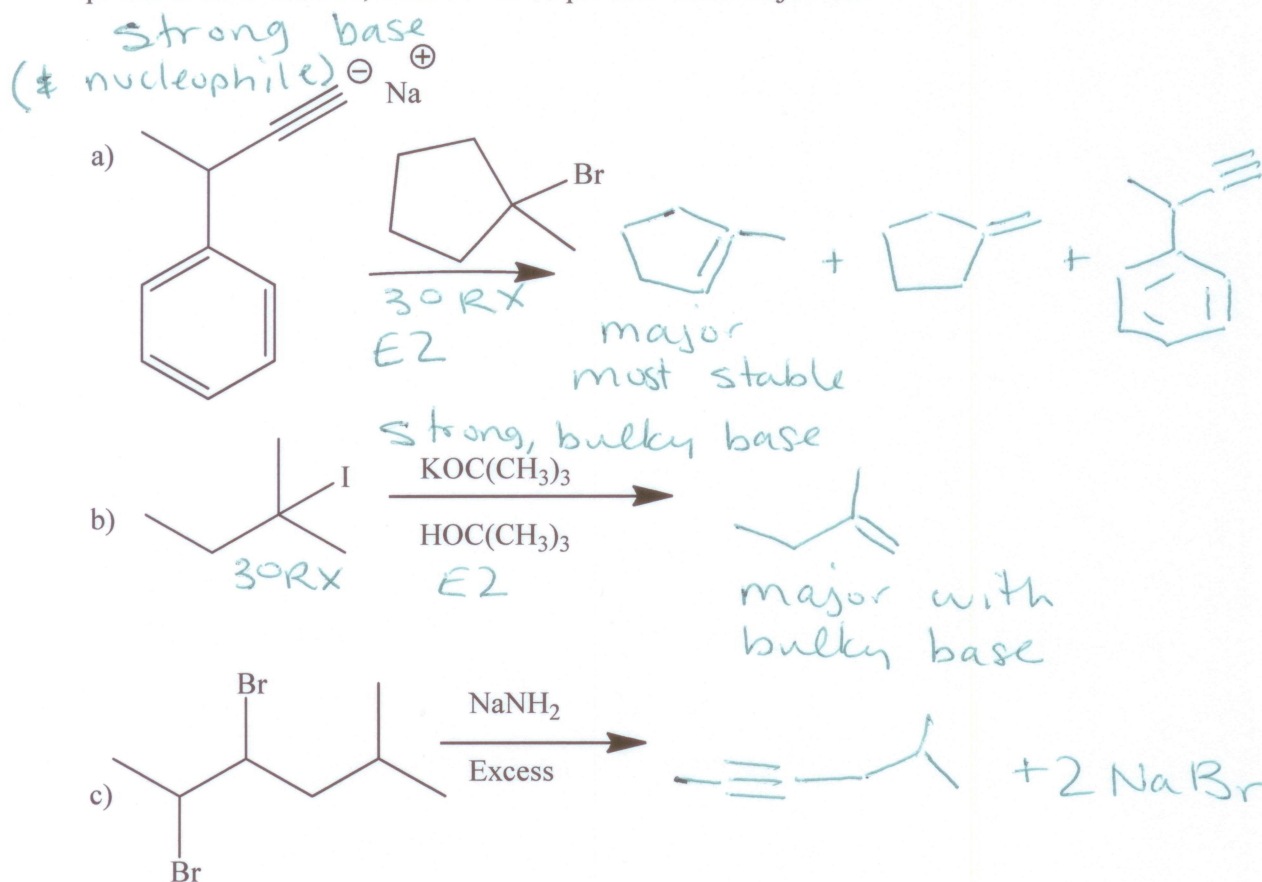


disubstituted  
least stable  
largest  $\Delta H$

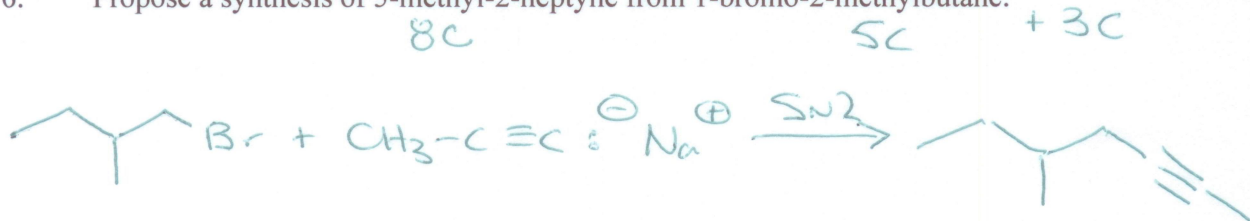


trisubstituted

5. Predict the products of each of the following reactions. Where there are major and minor products for a reaction, indicate which product is the major one.



6. Propose a synthesis of 5-methyl-2-heptyne from 1-bromo-2-methylbutane.



7. Propose a complete mechanism for the following reaction.

